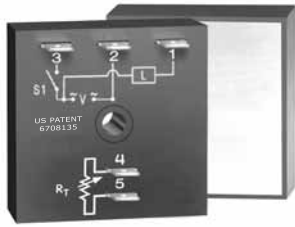


Delay On Make - Normally Closed THD4 Digi-Power Timing Module



5

- Load Energized Prior To and During Timing
- High Load Current Capacity up to 20 A, 200 A Inrush
- +/-0.5% Repeat Accuracy
- +/-1% Factory Calibration
- Totally Solid State and Encapsulated
- Fixed or Adjustable Delays From 0.1 s ... 1000 m in 6 Ranges

Approvals:

Accessories



External adjust potentiometer
P/Ns:
P1004-95 (fig A)
P1004-95-X (fig B)



Female quick connect
P/Ns:
P1015-64 (AWG 14/16)
P1015-13 (AWG 10/12)



Quick connect to screw adaptor
P/N: **P1015-18**



Versa-knob
P/N: **P0700-7**

See accessory pages for specifications.

Description

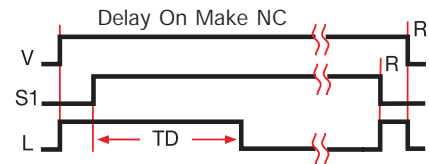
The THD4 utilizes solid state circuitry and a solid state relay in one easy to use control. The metallized mounting surface allows a metal panel to dissipate heat rather than adding an expensive heat sink. The solid state output is rated 6, 10, or 20 amps steady and up to 200 amps inrush. Motors, heaters and valves can be switched directly, eliminating the expense of a separate contactor. The THD4 offers substantial performance, reliability, and cost advantages for OEM designers.

Operation

Upon application of input voltage, the load is energized immediately. When the initiate switch closes, the time delay begins. At the end of the time delay, the load de-energizes.

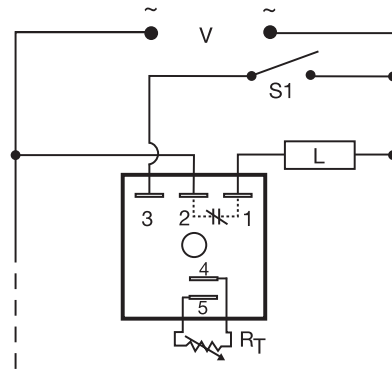
Reset: When the initiate switch is reopened, the load is again energized and the time delay is reset. Removing input voltage resets the time delay and the output.

Function



V = Voltage S1 = Initiate Switch L = Load
TD = Time Delay R = Reset
— = Undefined time

Connection



S1 = Low current initiate switch

R_T is used when external adjustment is ordered.
Dashed lines are internal connections.

Ordering Table

THD4 Series	X Output Rating	X Input	X Adjustment	X Time Delay *
	A - 6 A	2 - 24 V AC	1 - Fixed	0 - 0.1 ... 10 s
	B - 10 A	4 - 120 V AC	2 - External Adjust	1 - 1 ... 100 s
	C - 20 A	6 - 230 V AC	3 - Onboard Adjust	2 - 10 ... 1000 s
				3 - 0.1 ... 10 m
				4 - 1 ... 100 m
				5 - 10 ... 1000 m

*If Fixed Delay is selected, insert delay [0.1...1000] followed by (S) secs. or (M) mins.

Example P/N: **THD4A620** Fixed - **THD4A410.5S**

Delay On Make - Normally Closed

THD4 Digi-Power Timing Module

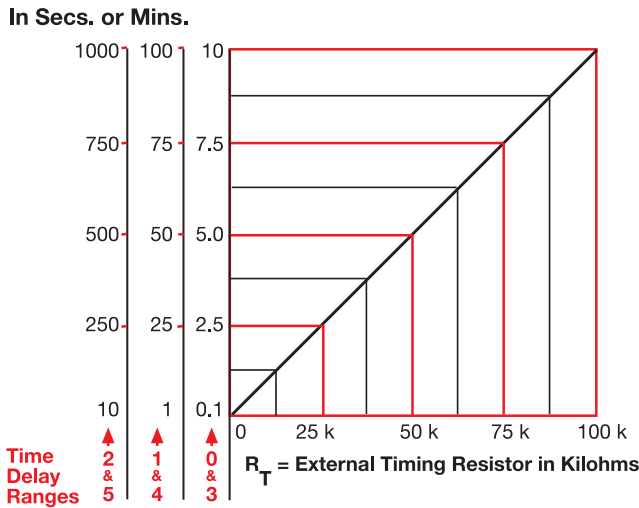
Technical Data

Time Delay													
Range	0.1 s ... 1000 m in 6 adjustable ranges or fixed												
Repeat Accuracy	+/-0.5% or 20 ms, whichever is greater												
Tolerance (Factory Calibration)	≤ +/-1%												
Reset Time	≤ 150 ms												
Time Delay vs. Temperature & Voltage	≤ +/-2%												
Input													
Voltage	24, 120, or 230 V AC												
Tolerance	+/-20%												
Line Frequency	50 ... 60 Hz												
Power Consumption	≤ 2 VA												
Output													
Type	Solid state												
Form	Normally closed												
Rating	<table border="1" style="display: inline-table; vertical-align: top;"> <thead> <tr> <th>Output</th> <th>Steady State</th> <th>Inrush*</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>6 A</td> <td>60 A</td> </tr> <tr> <td>B</td> <td>10 A</td> <td>100 A</td> </tr> <tr> <td>C</td> <td>20 A</td> <td>200 A</td> </tr> </tbody> </table>	Output	Steady State	Inrush*	A	6 A	60 A	B	10 A	100 A	C	20 A	200 A
Output	Steady State	Inrush*											
A	6 A	60 A											
B	10 A	100 A											
C	20 A	200 A											
Minimum Load Current	100 mA												
Voltage Drop	≅ 2.5 V at rated current												
OFF State Leakage Current	≅ 5 mA at 230 V AC												
Protection													
Circuitry	Encapsulated												
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface												
Insulation Resistance	≥ 100 MΩ												
Mechanical													
Mounting *	Surface mount with one #10 (M5 x 0.8) screw												
Termination	0.25 in. (6.35 mm) male quick connect terminals												
Environmental													
Operating/Storage Temperature	-40°C ... +60°C / -40°C ... +85°C												
Humidity	95% relative, non-condensing												
Weight	≅ 3.9 oz (111 g)												

*Must be bolted to a metal surface using the included heat sink compound. The maximum mounting surface temperature is 90°C. Inrush: Non-repetitive for 16 ms.

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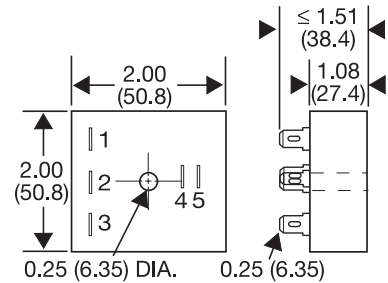
External Resistance vs Time Delay



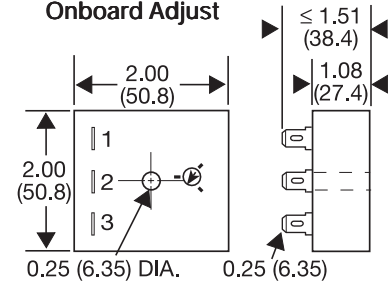
This chart applies to externally adjustable part numbers.
 The time delay is adjustable over the time delay range selected by varying the resistance across the R_T terminals; as the resistance increases the time delay increases.
 When selecting an external R_T , add the tolerances of the timer and the R_T for the full time range adjustment.
Examples: 1 to 50 S adjustable time delay, select time delay range 1 and a 50 K ohm R_T . For 1 to 100 S use a 100 K ohm R_T .

Mechanical View

Fixed & External Adjust



Onboard Adjust



Inches (Millimeters)